



## **NUCLEAR REGULATORY COMMISSION**

**10 CFR Part 72**

**[NRC-2021-0108]**

**RIN 3150-AK64**

**List of Approved Spent Fuel Storage Casks: TN Americas, LLC,  
Standardized Advanced NUHOMS® Horizontal Modular Storage System,  
Certificate of Compliance No. 1029, Renewal of Initial Certificate and  
Amendment Nos. 1, 3, and 4**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Direct final rule.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is amending its spent fuel storage regulations by revising the TN Americas, LLC, Standardized Advanced NUHOMS® Horizontal Modular Storage System listing within the “List of approved spent fuel storage casks” to renew, for an additional 40 years, the initial certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029. The renewal of the initial certificate and Amendment Nos. 1, 3, and 4 revises the certificate of compliance’s conditions and technical specifications to address aging management activities related to the structures, systems, and components of the dry storage system to ensure that these will maintain their intended functions during the period of extended storage operations.

**DATES:** This direct final rule is effective **[INSERT DATE 75 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, unless significant adverse comments are

received by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. If this direct final rule is withdrawn as a result of such comments, timely notice of the withdrawal will be published in the *Federal Register*. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date. Comments received on this direct final rule will also be considered to be comments on a companion proposed rule published in the Proposed Rules section of this issue of the *Federal Register*.

**ADDRESSES:** Submit your comments, identified by Docket ID NRC-2021-0108 at <https://www.regulations.gov>. If your material cannot be submitted using <https://www.regulations.gov>, call or email the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document for alternate instructions.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

**FOR FURTHER INFORMATION CONTACT:** Christopher Markley, Office of Nuclear Material Safety and Safeguards; telephone: 301-415-6293, email: Christopher.Markley@nrc.gov and Irene Wu, Office of Nuclear Material Safety and Safeguards, telephone: 301-415-1951, email: Irene.Wu@nrc.gov. Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

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## **I. Obtaining Information and Submitting Comments**

### **A. Obtaining Information**

Please refer to Docket ID NRC-2021-0108 when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID NRC-2021-0108. Address questions about NRC dockets to Dawn Forder, telephone: 301-415-3407, email: [Dawn.Forder@nrc.gov](mailto:Dawn.Forder@nrc.gov). For technical questions contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section.

- **Attention:** The PDR, where you may examine and order copies of public documents, is currently closed. You may submit your request to the PDR via email at

pdr.resource@nrc.gov or call 1-800-397-4209 between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

## B. Submitting Comments

Please include Docket ID NRC-2021-0108 in your comment submission. The NRC requests that you submit comments through the Federal rulemaking website at <https://www.regulations.gov>. If your material cannot be submitted using <https://www.regulations.gov>, call or email the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document for alternate instructions.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <https://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

## II. Rulemaking Procedure

This rule is limited to the renewal of the initial certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029 and does not include other aspects of TN Americas, LLC, Standardized Advanced NUHOMS® Horizontal Modular Storage System. Amendment No. 2 was withdrawn and not issued by the NRC. The NRC is using the

“direct final rule procedure” to issue this renewal because it represents a limited and routine change to an existing certificate of compliance that is expected to be non-controversial. Adequate protection of public health and safety continues to be reasonably assured. The amendment to the rule will become effective on **[INSERT DATE 75 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

However, if the NRC receives any significant adverse comments on this direct final rule by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, then the NRC will publish a document that withdraws this action and will subsequently address the comments received in a final rule as a response to the companion proposed rule published in the Proposed Rules section of this issue of the *Federal Register*. Absent significant modifications to the proposed revisions requiring republication, the NRC will not initiate a second comment period on this action.

A significant adverse comment is a comment where the commenter explains why the rule would be inappropriate, including challenges to the rule’s underlying premise or approach, or would be ineffective or unacceptable without a change. A comment is adverse and significant if:

1) The comment opposes the rule and provides a reason sufficient to require a substantive response in a notice-and-comment process. For example, a substantive response is required when:

a) The comment causes the NRC to reevaluate (or reconsider) its position or conduct additional analysis.

b) The comment raises an issue serious enough to warrant a substantive response to clarify or complete the record; or

c) The comment raises a relevant issue that was not previously addressed or considered by the NRC.

2) The comment proposes a change or an addition to the rule, and it is apparent that the rule would be ineffective or unacceptable without incorporation of the change or addition.

3) The comment causes the NRC to make a change (other than editorial) to the rule, certificate of compliance, or technical specifications.

### **III. Background**

Section 218(a) of the Nuclear Waste Policy Act of 1982, as amended, requires that “[t]he Secretary [of the Department of Energy] shall establish a demonstration program, in cooperation with the private sector, for the dry storage of spent nuclear fuel at civilian nuclear power reactor sites, with the objective of establishing one or more technologies that the [Nuclear Regulatory] Commission may, by rule, approve for use at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission.” Section 133 of the Nuclear Waste Policy Act states, in part, that “[t]he Commission shall, by rule, establish procedures for the licensing of any technology approved by the Commission under Section 219(a) [sic: 218(a)] for use at the site of any civilian nuclear power reactor.”

To implement this mandate, the Commission approved dry storage of spent nuclear fuel in NRC-approved casks under a general license by publishing a final rule that added a new subpart K in part 72 of title 10 of the *Code of Federal Regulations* (10 CFR) entitled “General License for Storage of Spent Fuel at Power Reactor Sites” (55 FR 29181; July 18, 1990). This rule also established a new subpart L in 10 CFR part 72 entitled “Approval of Spent Fuel Storage Casks,” which contains procedures and criteria for obtaining NRC approval of spent fuel storage cask designs. The NRC subsequently issued a final rule on January 6, 2003 (68 FR 463), that approved the Standardized Advanced NUHOMS® Horizontal Modular Storage System design and added it to the list of NRC-approved cask designs in § 72.214 as Certificate of Compliance No. 1029.

#### **IV. Discussion of Changes**

On May 22, 2019, TN Americas, LLC submitted a request to the NRC to renew, for an additional 40 years, the initial certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029 for the Standardized Advanced NUHOMS® Horizontal Modular Storage System. TN Americas, LLC, supplemented its request on December 4, 2019, and July 10, 2020.

The renewals of the initial certificate and Amendment Nos. 1, 3, and 4 were conducted in accordance with the renewal provisions in § 72.240. This section of the NRC spent fuel storage regulations authorizes NRC staff to include any additional certificate conditions it deems necessary to ensure the safe operation of the cask during the certificate's renewal period. The NRC included five additional conditions to the renewal of the initial certificate of compliance and Amendment Nos. 1, 3, and 4:

- The submittal of an updated final safety analysis report (UFSAR) to address aging management activities resulting from the renewal of the certificate of compliance. This condition ensures that the UFSAR changes are made in a timely fashion to enable general licensees using the storage system during the period of extended operation to develop and implement necessary procedures.
- The requirement that general licensees initiating or using spent fuel dry storage operations with the Standardized Advanced NUHOMS® Horizontal Modular Storage System ensure that their evaluations are included in the reports required by § 72.212, "Conditions of general license issued under § 72.210." These reports will include appropriate considerations for the period of extended operation, a review of the UFSAR changes resulting from the certificate of compliance renewal, and

a review of the NRC Safety Evaluation Report (SER) related to the certificate of compliance renewal.

- The requirement that future amendments and revisions to this certificate of compliance include evaluations of the impacts to aging management activities to ensure that they remain adequate for any changes to the structures, systems, and components (SSCs).
- The requirement that general licensees not use the OS197, OS197H, and OS200FC transfer casks approved under Certificate of Compliance No. 1004 aged 20 years or more to perform the transfer cask functions in the Standardized Advanced NUHOMS® Horizontal Modular Storage System. This condition prohibits the use of those transfer casks aged 20 years or older because the renewal application for the Certificate of Compliance No. 1004 did not assess performance of the transfer casks after the initial 20-year period.
- The requirement that any Standardized Advanced NUHOMS® Horizontal Modular System loaded up to and including those loaded on February 5, 2023, are considered loaded during the term of the initial certificate of compliance.

The NRC made two corresponding changes to the technical specifications for the initial certificate of compliance and Amendment Nos. 1, 3, and 4:

- Added text to the Transfer Cask Section to ensure that the requirements of the applicable transfer cask aging management program under the Renewed Certificate of Compliance No. 1004 have been satisfied.
- Added a section to the initial certificate of compliance and Amendment Nos. 1, 3, and 4 on the aging management program, which includes establishing, implementing, and maintaining written procedures for each aging management program described in the UFSAR.

As documented in the preliminary SER, the NRC performed a safety evaluation



of the proposed certificate of compliance renewal request. The NRC determined that this amendment does not change the cask design or fabrication requirements in the proposed certificate of compliance renewal request. The NRC determined the design of the cask would continue to maintain confinement, shielding, and criticality control in the event of each evaluated accident condition. In addition, any resulting occupational exposure of offsite dose rates from the renewal of the initial certificate of compliance and Amendment Nos. 1, 3, and 4 would remain well within the limits specified by 10 CFR part 20, "Standards for Protection Against Radiation." Thus, the NRC found there will be no significant change in the types or amounts of any effluent released, no significant increase in the individual or cumulative radiation exposure, and no significant increase in the potential for or consequences from radiological accidents. In its SER for the renewal of the Standardized Advanced NUHOMS® Horizontal Modular Storage System, the NRC has determined that if the conditions specified in the certificate of compliance to implement these regulations are met, adequate protection of public health and safety will continue to be reasonably assured.

This direct final rule revises the Standardized Advanced NUHOMS® Horizontal Modular Storage System listing in § 72.214 by renewing for 40 more years the initial certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029. The renewal consists of the changes previously described, as set forth in the renewed initial certificate and amendments and their revised technical specifications. The revised technical specifications are identified in the SER.

## **V. Voluntary Consensus Standards**

The National Technology Transfer and Advancement Act of 1995 (Pub. L. 104-113) requires that Federal agencies use technical standards that are developed or adopted by voluntary consensus standards bodies unless the use of such a standard is inconsistent with applicable law or otherwise impractical. In this direct final rule, the NRC revises the TN Americas, LLC Standardized Advanced NUHOMS® Horizontal

Modular Storage System design listed in § 72.214, “List of approved spent fuel storage casks.” This action does not constitute the establishment of a standard that contains generally applicable requirements.

## **VI. Agreement State Compatibility**

Under the “Agreement State Program Policy Statement” approved by the Commission on October 2, 2017, and published in the *Federal Register* on October 18, 2017 (82 FR 48535), this rule is classified as Compatibility Category NRC – Areas of Exclusive NRC Regulatory Authority. The NRC program elements in this category are those that relate directly to areas of regulation reserved to the NRC by the Atomic Energy Act of 1954, as amended, or the provisions of 10 CFR chapter I. Therefore, compatibility is not required for program elements in this category. Although an Agreement State may not adopt program elements reserved to the NRC, and the Category “NRC” does not confer regulatory authority on the State, the State may wish to inform its licensees of certain requirements by means consistent with the particular State’s administrative procedure laws.

## **VII. Plain Writing**

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, and well-organized manner. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, “Plain Language in Government Writing,” published June 10, 1998 (63 FR 31885).

## **VIII. Environmental Assessment and Finding of No Significant Impact**

Under the National Environmental Policy Act of 1969, as amended, and the NRC's regulations in 10 CFR part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," the NRC has determined that this direct final rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment and, therefore, an environmental impact statement is not required. The NRC has made a finding of no significant impact based on this environmental assessment.

#### A. The Action

The action is to amend § 72.214 to revise the Standardized Advanced NUHOMS® Horizontal Modular Storage System listing within the "List of approved spent fuel storage casks" to renew, for an additional 40 years, the initial certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029.

#### B. The Need for the Action

This direct final rule renews the initial certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029 for the TN Americas, LLC, Standardized Advanced NUHOMS® Horizontal Modular Storage System design within the list of approved spent fuel storage casks to allow power reactor licensees to store spent fuel at reactor sites in casks with the approved modifications under a general license. Specifically, this rule extends the expiration date for the TN Americas, LLC, Standardized Advanced NUHOMS® Horizontal Modular Storage System certificate for an additional 40 years, allowing a power reactor licensee to continue using it under general license provisions in an independent spent fuel storage installation to store spent fuel in dry casks in accordance with 10 CFR part 72.

#### C. Environmental Impacts of the Action

On July 18, 1990 (55 FR 29181), the NRC issued an amendment to

10 CFR part 72 to provide for the storage of spent fuel under a general license in cask designs approved by the NRC. The potential environmental impact of using NRC-approved storage casks was analyzed in the environmental assessment for the 1990 final rule. The environmental assessment for the renewal of the initial certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029 tiers off of the environmental assessment for the July 18, 1990, final rule. Tiering on past environmental assessments is a standard process under the National Environmental Policy Act of 1969, as amended. As required by § 72.240, applications for renewal of a spent fuel storage certificate of compliance design are required to demonstrate that SSCs important to safety will continue to perform their intended function for the requested renewal term. As discussed in the NRC staff's SER for the renewal of the initial certificate and Amendment Nos. 1, 3, and 4, the NRC staff has approved conditions in the renewed initial certificate and Amendment Nos. 1, 3, and 4 requiring the general licensee to implement the aging management activities described in the renewal application and incorporated into the UFSAR. These conditions ensure that the TN Americas, LLC, Standardized Advanced NUHOMS® Horizontal Modular Storage System will continue to perform its intended safety functions and provide reasonable assurance of adequate protection of public health and safety throughout the renewal period.

Incremental impacts from continued use of the Standardized Advanced NUHOMS® Horizontal Modular Storage System under a general license for an additional 40 years are not considered significant. When the general licensee follows all procedures and administrative controls, including the conditions established because of this renewal, no effluents are expected from the sealed dry cask systems. Activities associated with cask loading and decontamination may result in some small incremental liquid and gaseous effluents, but these activities will be conducted under 10 CFR parts 50 and 52 reactor operating licenses, and effluents will be controlled within existing reactor site technical specifications. Because reactor sites are relatively large, any incremental offsite doses due to direct radiation exposure from the spent fuel

storage casks are expected to be small, and when combined with the contribution from reactor operations, well within the annual dose equivalent of 0.25 mSv (25 mrem) limit to the whole body specified in § 72.104. Incremental impacts on collective occupational exposures due to dry cask spent fuel storage are expected to be only a small fraction of the exposures from operation of the nuclear power station.

The Standardized Advanced NUHOMS® Horizontal Modular Storage System is designed to mitigate the effects of design basis accidents that could occur during storage. Design basis accidents account for human-induced events and the most severe natural phenomena reported for the site and surrounding area. Postulated accidents analyzed for an independent spent fuel storage installation include tornado winds and tornado-generated missiles, a design basis earthquake, a design basis flood, an accidental cask drop, lightning effects, fire, explosions, and other incidents.

During the promulgation of the amendments that added subpart K to 10 CFR part 72 (55 FR 29181; July 18, 1990), the NRC staff assessed the public health consequences of dry cask storage accidents and sabotage events. In the supporting analyses for these amendments, the NRC staff determined that a release from a dry cask storage system would be comparable in magnitude to a release from the same quantity of fuel in a spent fuel storage pool. As a result of these evaluations, the NRC staff determined that, because of the physical characteristics of the storage casks and conditions of storage that include specific security provisions, the potential risk to public health and safety due to accidents or sabotage is very small.

Considering the specific design requirements for each accident or sabotage condition, the design of the cask would maintain confinement, shielding, and criticality control. If confinement, shielding, or criticality control are maintained, the environmental impacts from an accident would be insignificant.

There are no changes to cask design or fabrication requirements in the renewed initial certificate or Amendment Nos. 1, 3, and 4. Because there are no significant design or process changes, any resulting occupational exposure or offsite dose rates

from the implementation of the renewal of the initial certificate and Amendment Nos. 1, 3, and 4 would remain well within the 10 CFR part 20 limits.

In summary, the changes will not result in any radiological or non-radiological environmental impacts that significantly differ from the environmental impacts evaluated in the environmental assessment supporting the July 18, 1990, final rule. Compliance with the requirements of 10 CFR parts 20 and 72 would provide reasonable assurance that adequate protection of public health and safety will continue. The NRC, in its SER for the renewal of the Standardized Advanced NUHOMS® Horizontal Modular Storage System, has determined if the conditions specified in the certificate of compliance to implement these regulations are met, adequate protection of public health and safety will continue to be reasonably assured.

Based on the previously stated assessments and its SER for the requested renewal of the Standardized Advanced NUHOMS® Horizontal Modular Storage System certificates, the NRC has determined that the expiration date of this system in 10 CFR 72.214 can be safely extended for an additional 40 years, and that commercial nuclear power reactor licensees can continue using the system during this period under a general license without significant impacts on the human environment.

#### D. Alternative to the Action

The alternative to this action is to deny approval of the renewals and not issue the direct final rule. Under this alternative, the NRC would either 1) require general licensees using the Standardized Advanced NUHOMS® Horizontal Modular Storage System to unload the spent fuel from these systems and either return it to a spent fuel pool or re-load it into a different dry storage cask system listed in 10 CFR 72.214; or 2) require that users of the existing Standardized Advanced NUHOMS® Horizontal Modular Storage System request site-specific licensing proceedings to continue storage in these systems.

The environmental impacts of requiring the licensee to unload the spent fuel and

either return it to the spent fuel pool or re-load it into another NRC-approved cask system would result in increased radiological doses to workers. These increased doses would be due primarily to direct radiation from the casks while the workers unloaded, transferred, and re-loaded the spent fuel. These activities would consist of transferring the dry storage canisters to a cask-handling building, opening the canister lid welds, returning the canister to a spent fuel pool or dry transfer facility, removing the fuel assemblies, and re-loading them, either into a spent fuel pool storage rack or another NRC-approved dry storage system. In addition to the increased occupational doses to workers, these activities may also result in additional liquid or gaseous effluents.

Alternatively, users of the dry cask storage system would need to apply for a site-specific license. Under this option for implementing the no-action alternative, interested licensees would have to prepare, and the NRC would have to review, each separate license application, thereby increasing the administrative burden upon the NRC and the costs to each licensee.

In summary, the no-action alternative would entail either 1) more environmental impacts than the preferred action from transferring the spent fuel now in the Standardized Advanced NUHOMS® Horizontal Modular Storage System; or 2) cost and administrative impacts from multiple licensing actions that, in aggregate, are likely to be the same as, or more likely greater than, the preferred action.

#### E. Alternative Use of Resources

Renewal of the initial certificate and Amendment Nos. 1, 3, and 4 to Certificate of Compliance No. 1029 would result in no irreversible commitment of resources.

#### F. Agencies and Persons Contacted

No agencies or persons outside the NRC were contacted in connection with the preparation of this environmental assessment.

## **G. Finding of No Significant Impact**

The environmental impacts of the action have been reviewed under the requirements in the National Environmental Policy Act of 1969, as amended, and the NRC's regulations in subpart A of 10 CFR part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions." Based on the foregoing environmental assessment, the NRC concludes that this direct final rule, "List of Approved Spent Fuel Storage Casks: TN Americas, LLC, Standardized Advanced NUHOMS® Horizontal Modular Storage System, Certificate of Compliance No. 1029, Renewal of Initial Certificate and Amendment Nos. 1, 3, and 4," will not have a significant effect on the human environment. Therefore, the NRC has determined that an environmental impact statement is not necessary for this direct final rule.

## **IX. Paperwork Reduction Act Statement**

This direct final rule does not contain any new or amended collections of information subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing collections of information were approved by the Office of Management and Budget, approval number 3150-0132.

## **Public Protection Notification**

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid Office of Management and Budget control number.

## **X. Regulatory Flexibility Certification**



Under the Regulatory Flexibility Act of 1980 (5 U.S.C. 605(b)), the NRC certifies that this direct final rule will not, if issued, have a significant economic impact on a substantial number of small entities. This direct final rule affects only nuclear power plant licensees and TN Americas, LLC. These entities do not fall within the scope of the definition of small entities set forth in the Regulatory Flexibility Act or the size standards established by the NRC (§ 2.810).

## **XI. Regulatory Analysis**

On July 18, 1990 (55 FR 29181), the NRC issued an amendment to 10 CFR part 72 to provide for the storage of spent nuclear fuel under a general license in cask designs approved by the NRC. Any nuclear power reactor licensee can use NRC-approved cask designs to store spent nuclear fuel if 1) it notifies the NRC in advance; 2) the spent fuel is stored under the conditions specified in the cask's certificate of compliance; and 3) the conditions of the general license are met. A list of NRC-approved cask designs is contained in § 72.214. On January 6, 2003 (68 FR 463), the NRC issued an amendment to 10 CFR part 72 that approved the Standardized Advanced NUHOMS® Horizontal Modular Storage System design by adding it to the list of NRC-approved cask designs in § 72.214 as Certificate of Compliance No. 1029.

On May 22, 2019, TN Americas, LLC requested a renewal of the initial certificate and Amendment Nos. 1, 3, and 4 of the Standardized Advanced NUHOMS® Horizontal Modular Storage System for an additional 40 years beyond the initial certificate term. TN Americas, LLC supplemented its request on December 4, 2019, and July 10, 2020. Because TN Americas, LLC filed its renewal application at least 30 days before the certificate expiration date of February 5, 2023, pursuant to the timely renewal provisions in § 72.240(b), the initial issuance of the certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029 did not expire.

The alternative to this action is to deny approval of the renewal of the initial

certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029 and end this direct final rule. Under this alternative, the NRC would either 1) require general licensees using the Standardized Advanced NUHOMS® Horizontal Modular Storage System to unload spent fuel from these systems and return it to a spent fuel pool or re-load it into a different dry storage cask system listed in 10 CFR 72.214; or 2) require that users of the existing Standardized Advanced NUHOMS® Horizontal Modular Storage System request site-specific licensing proceedings to continue storage in these systems. Therefore, the no-action alternative would result in a significant burden on licensees and an additional inspection or licensing caseload on the NRC. In addition, the no action alternative would entail either 1) more environmental impacts than the preferred action from transferring the spent fuel now in the Standardized Advanced NUHOMS® Horizontal Modular Storage System; or 2) cost and administrative impacts from multiple licensing actions that, in aggregate, are likely to be the same as, or more likely greater than, the preferred action.

Approval of this direct final rule is consistent with previous NRC actions. Further, as documented in the preliminary SER and environmental assessment, this direct final rule will have no adverse effect on public health and safety or the environment. This direct final rule has no significant identifiable impact or benefit on other government agencies. Based on this regulatory analysis, the NRC concludes that the requirements of this direct final rule are commensurate with the NRC's responsibilities for public health and safety and the common defense and security. No other available alternative is believed to be as satisfactory; therefore, this action is recommended.

## **XII. Backfitting and Issue Finality**

The NRC has determined that the backfit rule (§ 72.62) does not apply to this direct final rule. Therefore, a backfit analysis is not required. This direct final rule renews Certificate of Compliance No. 1029 for the Standardized Advanced NUHOMS®

Horizontal Modular Storage System, as currently listed in § 72.214, to extend the expiration date of the initial certificate and Amendment Nos. 1, 3, and 4 by 40 years. The renewed initial certificate and Amendment Nos. 1, 3, and 4 consist of the changes previously described, as set forth in the revised certificate of compliance and technical specifications.

Extending the effective date of the initial certificate and Amendment Nos. 1, 3, and 4 for 40 more years and requiring the implementation of aging management activities does not impose any modification or addition to the design of a cask system's SSC, or to the procedures or organization required to operate the system during the initial 20-year storage period of the system, as authorized by the current certificate. General licensees that have loaded these casks, or that load these casks in the future under the specifications of the applicable certificate, may continue to store spent fuel in these systems for the initial 20-year storage period authorized by the original certificate. The aging management activities required to be implemented by this renewal are only required after the storage cask system's initial 20-year service period ends. As explained in the 2011 final rule that amended 10 CFR part 72 (76 FR 8872, Question I), the general licensee's authority to use a particular storage cask design under an approved certificate of compliance terminates 20 years after the date that the general licensee first loads the particular cask with spent fuel, unless the cask's certificate of compliance is renewed. Because this rulemaking renews the initial certificate and Amendment Nos. 1, 3, and 4, and renewal is a separate licensing action voluntarily implemented by vendors, the renewal of the initial certificate and Amendment Nos. 1, 3, and 4 is not an imposition of new or changed requirements from which these licensees would otherwise be protected by the backfitting provisions in 10 CFR 72.62.

Even if renewal of the initial certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029 could be considered a backfit, TN Americas, LLC, as the holder of the certificate of compliance and vendor of the casks, is not protected by the backfitting provisions in 10 CFR 72.62.

Unlike a vendor, general licensees using the existing systems subject to these renewals would be protected by the backfitting provisions in 10 CFR 72.62 if the renewals constituted new or changed requirements applicable during the initial 20-year storage period. But, as previously explained, renewal of the initial certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029 does not impose such requirements. The general licensee using the initial certificate or Amendment Nos. 1, 3, or 4 of Certificate of Compliance No. 1029 may continue storing material in their respective cask systems for the initial 20-year storage period identified in the applicable certificate or amendment with no changes. If general licensees choose to continue to store spent fuel in Standardized Advanced NUHOMS® Horizontal Modular Storage Systems after the initial 20-year period, these general licensees will be required to implement aging management activities for any cask systems subject to a renewed certificate of compliance, but such continued use is voluntary.

For these reasons, renewing the initial certificate and Amendment Nos. 1, 3, and 4 of Certificate of Compliance No. 1029, and imposing the additional conditions previously discussed, does not constitute backfitting under § 72.62, or otherwise represent an inconsistency with the issue finality provisions applicable to combined licenses in 10 CFR part 52. Accordingly, the NRC has not prepared a backfit analysis for this rulemaking.

### **XIII. Congressional Review Act**

This direct final rule is not a rule as defined in the Congressional Review Act.

### **XIV. Availability of Documents**

The documents identified in the following table are available to interested persons, as indicated.

DOCUMENT	ADAMS ACCESSION NO.
TN Americas, LLC Renewal Application for the Standardized NUHOMS® Horizontal Modular Storage System Certificate of Compliance No. 1029, dated May 22, 2019	ML19148A484 (package)
TN Americas, LLC Response to Request for Supplemental Information for the Technical Review of the Application for Certificate of Compliance No. 1029, dated December 4, 2019	ML19338E132
TN Americas, LLC Response to Request for Additional Information of the Application for Renewal of the Certificate of Compliance No. 1029, dated May 28, 2020	ML20192A127
User Need Memorandum for Rulemaking for Certificate of Compliance Renewal, Initial Issue (Amendment Number 0), Amendment Numbers 1, 3, and 4 to Standardized Advanced NUHOMS® Horizontal Modular Storage System	ML21067A166
Preliminary Safety Evaluation Report for the Standardized Advanced NUHOMS® Horizontal Modular Storage System Certificate of Compliance Renewal	ML21067A167
Proposed Certificate of Compliance No. 1029, Renewed Initial Certificate	ML21067A168
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The NRC may post materials related to this document, including public comments, on the Federal rulemaking website at <https://www.regulations.gov> under

## **List of Subjects in 10 CFR Part 72**

Administrative practice and procedure, Hazardous waste, Indians, Intergovernmental relations, Nuclear energy, Penalties, Radiation protection, Reporting and recordkeeping requirements, Security measures, Spent fuel, Whistleblowing.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; the Nuclear Waste Policy Act of 1982, as amended; and 5 U.S.C. 552 and 553; the NRC is adopting the following amendments to 10 CFR part 72:

### **PART 72 - LICENSING REQUIREMENTS FOR THE INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL, HIGH-LEVEL RADIOACTIVE WASTE, AND REACTOR-RELATED GREATER THAN CLASS C WASTE**

1. The authority citation for part 72 continues to read as follows:

**Authority:** Atomic Energy Act of 1954, secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 223, 234, 274 (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2210e, 2232, 2233, 2234, 2236, 2237, 2238, 2273, 2282, 2021); Energy Reorganization Act of 1974, secs. 201, 202, 206, 211 (42 U.S.C. 5841, 5842, 5846, 5851); National Environmental Policy Act of 1969 (42 U.S.C. 4332); Nuclear Waste Policy Act of 1982, secs. 117(a), 132, 133, 134, 135, 137, 141, 145(g), 148, 218(a) (42 U.S.C. 10137(a), 10152, 10153, 10154, 10155, 10157, 10161, 10165(g), 10168, 10198(a)); 44 U.S.C. 3504 note.

2. In § 72.214, Certificate of Compliance No. 1029 is revised to read as follows:

#### **§ 72.214 List of approved spent fuel storage casks.**

\* \* \* \* \*

Certificate Number: 1029.

Initial Certificate Effective Date: February 5, 2003, superseded by Renewed Initial Certificate Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 1 Effective Date: May 16, 2005, superseded by Renewed

Amendment Number 1 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 2 Effective Date: Amendment not issued by the NRC.

Amendment Number 3 Effective Date: February 23, 2015, superseded by Renewed

Amendment Number 3 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 4 Effective Date: March 12, 2019, superseded by Renewed

Amendment Number 4 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

SAR Submitted by: Transnuclear, Inc., now TN Americas, LLC.

Renewal SAR Submitted by: TN Americas, LLC.

SAR Title: Final Safety Analysis Report for the Standardized Advanced NUHOMS® Horizontal Modular Storage System for Irradiated Nuclear Fuel.

Docket Number: 72-1029.

Certificate Expiration Date: February 5, 2023.

Renewed Certificate Expiration Date: February 5, 2063.

Model Number: Standardized Advanced NUHOMS®-24PT1, -24PT4, and -32PTH2.

\* \* \* \* \*

Dated: August 6, 2021.

For the Nuclear Regulatory Commission.

Daniel H. Dorman,  
Acting Executive Director for Operations.

